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EXAMINER	
HAJNIK, DANIEL F	
ART UNIT	**PAPER NUMBER**
2671	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/810,680	KAPLER ET AL.	
	Examiner	Art Unit	
	Daniel F. Hajnik	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 3/15/2004. It is noted, however, that applicant has not filed a certified copy of the application as required by 35 U.S.C. 119(b).

2. In addition, the applicant filed a request for an updated filing receipt requesting foreign priority for Canadian application 2,461,118. However, the applicant in this request mistakes the foreign application filing date to be 3/15/2003 rather than 3/15/2004. The examiner will examine this application in accordance with the correct foreign priority filing date of 3/15/2004.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
The application number is missing in reference to the foreign priority application.

Specification

4. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology

often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 1-44 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-44 of copending Application No.11/078330. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Objections

7. Claim 20 is objected to because of the following informalities: Please change "preceeding" to "preceding". Appropriate correction is required.

8. Claims 24 and 26 are objected to because of the following informalities: The meaning of the phrase "default + user-set color" is unclear. In this office action, the

examiner will assume the phrase to mean, "default colors and user set colors".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-4, 12-15, 22-31, and 33-44 are rejected under 35 U.S.C. 102(a) as being anticipated by Kraak (NPL Document, "The Space-Time Cube Revisited from a Geovisualization perspective", herein referred to as "Kraak").

As per claims 1, 43, and 44, Kraak teaches the claimed "assembling the group of data using the at least one association" (visualization manager) by teaching of "The Space-Time-Cube is most suitable for the display and analysis of paths of (multiple) individuals, groups or other objects moving through space" (1st paragraph under section 5) and by teaching of "The Space-Time-Cube offers good visual opportunities to study the relation between time and space and additional variables" (4th paragraph under section 5).

Kraak teaches the claimed "generating a spatial domain ... to include a reference surface" by teaching of "the cube has on its base a representation of the geography (along the x- and y-axis)" (2nd paragraph under section 1) where the reference plane is

shown as the lower, shaded plane in figure I and where the x and y axis represent a spatial domain.

Kraak teaches the claimed "the reference surface for relating a first visual element representing a first data element of the group to a first location of interest" by teaching of movement and time around a first location (labeled 'home') in figure I where a first visual element may include a label of the time for arriving or departing the location. The reference surface is the lower, shaded plane where the vertical lines emerge.

Kraak teaches the claimed "the reference surface ... and relating a second visual element representing a second data element of the group to a second location of interest" by teaching of movement and time around a second location (labeled 'pool') in figure I where a second visual element may include a label of the time for arriving or departing the location.

Kraak teaches the claimed "generating a temporal domain ... coupled to the spatial domain" by teaching of "the cube has on its base a representation of the geography (along the x- and y-axis), while the cube's height represents time (z-axis)." (2nd paragraph under section 1).

Kraak teaches the claimed "the temporal domain for providing a common temporal reference frame for the locations of interest ... including a first time track coupled to the first location and a second time track coupled to the second location of interest" by teaching of in figure I vertical lines (sometimes gray colored vertical lines) which represent time (time tracks). Each location has associated vertical lines (first and

second time tracks). Kraak further teaches this by teaching of "The vertical line in the path represents the time a person remains at the same location" (caption under figure I) where these lines are commonly referenced from the plane from which they emerge from.

Kraak teaches the claimed "the first visual element positioned on the first time track and the second visual element positioned on the second time track, each of the time tracks configured for visually representing a respective temporal sequence of a plurality of the data elements at each of the locations of interest of the reference surface" by teaching of location labels (i.e. 'home' and 'pool') and time labels (i.e. '7:15' and '7:00') positioned on the vertical lines in figure I.

Kraak teaches the claimed "assigning a connection visual element in the visual representation between the first visual element and the second visual element, the connection visual element for representing a distributed association in at least of the domains between the first visual element and the second visual element" by teaching of a timeline over the location of 'home' in figure I where a distributed association between the different times (i.e. 5:10, 7:15, 7:55) is shown and further by teaching of a solid line connecting locations within figure I, which can represent a distribution because it represents general movement through paths over time.

Kraak teaches the claimed "wherein the visual representation is displayed on a user interface" by teaching of "The user can interact with the map and the data behind it. This capability adds a different perspective to the map, as they become interactive

tools for exploring the nature of the geospatial data at hand. The map should be seen as an interface to geospatial data" (1st paragraph under section 3).

As per claim 2, Kraak teaches the claimed "wherein the visual representation of the group of data elements is selected from the group comprising; a concurrent time and geographic context, and a concurrent time and diagrammatic context" by teaching of a concurrent time and geographic context where the reference states "a cube with on its base a representation of geography (along the x- and y-axis)" (abstract) and by teaching of "The Space-Time-Cube is most suitable for the display and analysis of paths of (multiple) individuals, groups or other objects moving through space" (1st paragraph under section 5) where these objects can be tracked concurrently.

As per claim 3, Kraak teaches the claimed "the step of configuring the reference surface for providing an instant of focus in the temporal reference frame for at least some of the temporal and spatial properties of the group of data elements, the instant of focus coupled to the locations of interest of the reference surface, the instant of focus selected by user events" by teaching of in figure 2 a 'working-view' (instant of focus) where this view is the instant of focus of the outlined box shown in the '3d-view' and by teaching of "Interaction in(is) needed because the three-dimensional cube has to be manipulated in space to find the best possible view" ('is' added for clarity) (1st paragraph under section 4) where manipulation may include adjusting the reference plane. Further, Kraak teaches of "The user has full flexibility to view, manipulate and

query the data in a Space-Time-Cube. Included are options to move slider planes along each of the axes to for instance select" (abstract).

As per claim 4, Kraak teaches the claimed "temporal reference frame for providing a time range selected from the group comprising; a past range of the temporal sequence preceding the instant of focus, and a future range of the temporal sequence after the instant of focus" by teaching of "Included are options to move slider planes along each of the axes to for instance select, or highlight a period in time or location in space" (abstract) where highlighting a period of time can include a past or future range of the temporal sequence.

As per claim 12, Kraak teaches the claimed "maintaining an orientation of the time tracks with respect to the reference surface such that changes in the attitude of the reference surface in response to the user events results in a corresponding change in the orientation of the time tracks" by teaching of in figure 3, II, changing the orientation of the reference surface and by teaching of "Since we deal with the display of the third dimension the option to manipulate the cube in 3d space is a basic requirement. Rotating the cube independently around any of its axis is possible" (3rd paragraph under section 4). Such a change would further change the orientation of the time tracks in order for the system data to be maintained in the visual presentation.

As per claim 13, Kraak teaches the claimed "wherein the orientation angle between the time tracks is 90 degrees" by teaching of in figure 3, I, the time tracks (vertical lines) that are normal (90 degrees) to the reference surface (the plane from which they emerge).

As per claim 14, Kraak teaches the claimed "maintaining an orientation of the time tracks with respect to the reference surface such that changes in the attitude of the reference surface in response to the user events does not result in a corresponding change in the orientation of the time tracks" by teaching of "For selection purposes it is also possible to use multiple slider planes along the axis to highlight an area of the cube" (3rd paragraph under section 4) where based upon the setup in figure 3, picture II, this orientation with the time tracks will change accordingly with the reference surface.

As per claim 15, Kraak teaches the claimed "wherein the orientation of the time tracks is such that the length of the time tracks is maximized as perceived by a user of the user interface" by teaching of "It is possible though that different time variables exist of which one should be selected by the user. For instance time could be given in years but also according particular historical events like the reign of an administration" (2nd paragraph under section 4) where a user could use this capability to maximize the length of the time tracks for a given area of interest.

As per claim 22, Kraak teaches the claimed "wherein types of the data elements are selected from the group comprising; entity, location, and event" by teaching of "The Space-Time-Cube is most suitable for the display and analysis of paths of (multiple) individuals, groups or other objects moving through space" (entities) (1st paragraph under section 5), by teaching of locations in figure I (i.e. 'home' and 'pool'), and by teaching of "The cube will contain vertical lines for each check point (stations), and based on the SMS messages and the arrival at the check point the paths of all runners can be generated and displayed near real-time" (events) (1st paragraph under section 5).

As per claim 23, Kraak teaches the claimed "wherein the event data element type represents an action taking place at a particular one of the locations of interest in the spatial reference frame and at a particular time in the temporal reference frame" by teaching of "in this example we consider an event where the participants leave with a certain time interval in between and have to follow a predefined route along the check points ... This approach allows the organisation to monitor the runners' positions during the race. The cube will contain vertical lines for each check point (stations), and based on the SMS messages and the arrival at the check point the paths of all runners can be generated and displayed near real-time" (1st paragraph under section 5).

As per claim 24, Kraak teaches the claimed "wherein the event data element type has data properties and display properties selected from the group comprising; a short

text label, description, location, start-time, end-time, general event type, icon reference, visual layer settings, priority, status, user comment, certainty value, source of information, and default + user-set color" by teaching of short text labels, locations, start-times, and end-times in figure I, and by teaching of "it is possible to switch information layers on and off" (3rd paragraph under section 4).

As per claim 25, Kraak teaches the claimed "wherein the entity data element type represents an actor involved in a selected event" by teaching of "The Space-Time-Cube is most suitable for the display and analysis of paths of (multiple) individuals, groups or other objects moving through space" (actors) (1st paragraph under section 5).

As per claim 26, Kraak teaches the claimed "wherein the entity data element type has data properties and display properties selected from the group comprising; short text label, description, general entity type, icon reference, visual layer settings, priority, status, user comment, certainty value, source of information, and default + user-set color" by teaching of short text labels (figure I), by teaching of "variables linked to the Space-Time-Path -- its colour and width" (2nd paragraph under section 4) where the Space-Time-Path may marked dots on the display (figure 2), and by teaching of "it is possible to switch information layers on and off" (3rd paragraph under section 4).

As per claim 27, Kraak teaches the claimed "wherein the location data element type represents a location within the spatial reference frame" by teaching of in figure I locations (i.e. 'home' and 'pool').

As per claim 28, Kraak teaches the claimed "wherein the location data element type has data properties and display properties selected from the group comprising; position coordinates, a label, description, color information, precision information, location type, non-geospatial flag and user comments" by teaching of "The user can interact with the map and the data behind it. ... The map should be seen as an interface to geospatial data that can support information access and exploratory activities" (1st paragraph under section 3) where the interface may include changing the labels or the locations position. Further Kraak teaches the claimed limitation by teaching of "The location of a find will be presented be a vertical line that has a colour/ thickness at the relevant time period" (3rd paragraph under section 5).

As per claim 29, Kraak teaches the claimed "wherein the location data element type is selected from the group comprising; a physical location on a geospatial map, a physical location as a node in a diagram, and a virtual location related to a geospatial map" by teaching of "the author's travels on an average Thursday in Enschede, the Netherlands"(physical location) (caption under figure I) and by teaching of "Geovisualization integrates approaches from scientific visualization, (exploratory) cartography" (a virtual location) (2nd paragraph under section 3).

As per claim 30, Kraak teaches the claimed "wherein the at least one association describes a pairing between two or more of the data elements" by teaching of "The attribute view shows the variables available for display, and allows the user to link those variables to the Space-Time-Cube's display variables" (2nd paragraph under section 4) where the 'attribute view' in figure 2 shows a plurality of pairings between data elements.

As per claim 31, Kraak teaches the claimed "wherein the connection visual element is a solid line representing a direct connection between the first visual element and the second visual element" by teaching of solid lines connecting locations, and starting and ending times in figure I.

As per claim 33, Kraak teaches the claimed "wherein the connection visual element is a trail represented as a series of connected lines tracing known locations in the spatial reference frame of a selected entity visual element over time represented by the temporal reference frame." by teaching of in figure I a solid line connecting locations which is a series of connecting lines.

As per claim 34, Kraak teaches the claimed "updating the visual elements in the visual representation in response to the user events" by teaching of "Interaction in needed because the three-dimensional cube has to be manipulated in space to find the

best possible view" (1st paragraph under section 4) where such interaction uses updating.

As per claim 35, Kraak teaches the claimed "wherein the user events are generated in response to manipulation by the user of an interactive control for modifying visual properties of the visual representation" by teaching of "Interaction in needed because the three-dimensional cube has to be manipulated in space to find the best possible view ... The alternative graphics appear outside the cube and are linked and should stimulate thinking new insights and explanations" (1st paragraph under section 4) and where an interactive control is shown in figure 2, labeled 'attribute-view'.

As per claim 36, Kraak teaches the claimed "wherein the interactive control is selected from the group comprising a time range selector and an instant of focus selector" by teaching of "It is possible though that different time variables exist of which one should be selected by the user. For instance time could be given in years but also according particular historical events like the reign of an administration" (2nd paragraph under section 4) where such functionality allows the ability to control the time range. Kraak teaches of focus selection in figure 2, where the box shown in the '3-D view' selects the view shown in the 'working-view'.

As per claim 37, Kraak teaches the claimed "animating the display of at least one of the visual elements of the visual representation in response to the manipulation of the

interactive control" by teaching of "could even use the cube as an animation environment to replay the orienteering event as a whole or for individual runners" (1st paragraph under section 5).

As per claim 38, Kraak teaches the claimed "the display of the connection visual element of the visual representation is animated in response to the manipulation of the interactive controls" by teaching of "could even use the cube as an animation environment to replay the orienteering event as a whole or for individual runners" (1st paragraph under section 5) where such a replay of the race event by the runners involves a connection visual element.

As per claim 39, Kraak teaches the claimed "the connection visual element is coupled to the movement of an entity visual element across the visual representation between the first location of interest and the second location of interest, entity visual element representing an actor involved in a selected event" by teaching of "After the race the Space-Time-Cube viewing environment would allow the participants to analyze their run after the race and once could even use the cube as an animation environment to replay the orienteering event as a whole or for individual runners" (1st paragraph under section 5) where the starting location would be the first location and the ending point would be the second location and the path would represent a runner (an actor).

As per claim 40, Kraak teaches the claimed "applying a filtering function to the visual elements and the at least one related association to select a subgroup thereof" by teaching of "options to move slider planes along each of the axes to for instance select, or highlight a period in time or location in space" (abstract) where the resulting selection or highlighting is a subgroup and may act as a way to filter out non-related information.

As per claim 41, Kraak teaches the claimed "selecting the subgroup according to a method selected from the group comprising; criteria matching, algorithmic methods, and manual selection" by teaching of "In this paper an extended interactive and dynamic visualization environment is proposed, and demonstrated, in which the user has full flexibility to view, manipulate and query the data in a Space-Time-Cube. Included are options to move slider planes along each of the axes to for instance select, or highlight a period in time or location in space" (abstract) where the ability to query involves criteria matching and the ability to select or highlight a selection involves manually selecting subgroup.

As per claim 42, Kraak teaches the claimed "processing the selected subgroup of visual elements to change the presentation of the visual representation selected from the group comprising; highlighting the subgroup and removing the subgroup" by teaching of "In this paper an extended interactive and dynamic visualization environment is proposed, and demonstrated, in which the user has full flexibility to view, manipulate and query the data in a Space-Time-Cube. Included are options to move

slider planes along each of the axes to for instance select, or highlight a period in time or location in space" (abstract).

Claim Rejections - 35 USC § 103

11. Claims 5-11, 16-21, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraak.

As per claim 5, Kraak does not explicitly teach the claimed "intersecting the first time track through the first location of interest such that the past range of the first time track extends from one side of the reference surface and the future range of the first time track extends from the other side of the reference surface, the instant of focus located on the first time track at the intersection point between the first time track and the reference surface". However, Kraak teaches of "options to move slider planes along each of the axes to for instance select, or to highlight a period of time" (abstract). Given this capability it would have been obvious to slide a plane such as the reference plane for intersection to occur in order to better get a sense and visualization of the period of time that has pasted.

As per claim 6, Kraak teaches the claimed "arranging a first plurality of the visual elements along the first time track according to the times at which the visual elements occurred in the temporal reference frame" by teaching of this in figure I, where there are time labels (visual elements) along a time track in various spots.

As per claim 7, Kraak teaches the claimed "intersecting the second time track through the second location of interest such that the past range of the second time track extends from one side of the reference surface and the future range of the first time track extends from the other side of the reference surface, the second instant of focus located on the second time track at the intersection point between the second time track and the reference surface" by teaching of moving the instant of focus in figure 2 where the 'working view' shows such an instant of focus. If the user moved this 'working view' to the claimed second location of interest and changed the reference frame then Kraak would perform the claimed functionality.

As per claim 8, Kraak teaches the claimed "a second plurality of the visual elements along the second time track according to the times at which the visual elements occurred in the temporal reference frame" by teaching of tracking of multiple time tracks of multiple individuals where the results of figure I could be displayed for a plurality time tracks (1st paragraph under section 5).

As per claim 9, Kraak teaches the claimed "the location in the temporal reference frame of each of the plurality of visual elements on the time tracks is proportional to the distance from the instant of focus associated with the reference surface" by teaching of a time scale shown in figure I located on the far corner of the cube (located on a vertical line). This scale would indicate the claimed proportionality by further stressing the

relation between the cube size (instant of focus) and the termporal reference frame (time scale) which is indicated by the cube's height.

As per claim 10, Kraak teaches the claimed "wherein the time tracks are represented as timelines in the visual representation" by teaching of the claimed timelines through the time labels shown in figure I.

As per claim 11, Kraak teaches the claimed "wherein the temporal reference frame has a scale selected from the group comprising linear and logarithmic" by teaching of a linear scale in figure I located on the far corner of the cube (located on a vertical line).

As per claim 16, Kraak does not explicitly teach the claimed "overlapping a time chart on the first time track and the second time track, the time chart having a time axis and a spatial axis for representing the temporal reference frame and at least one of the spatial dimensions respectively". However, Kraak teaches of a time chart in figure 5, labeled 'map & time line' where the time chart has a time axis and spatial axis. It would have been obvious to one of ordinary skill to superimpose this chart on a time track in order to view more data simultaneously. This is further suggested by figure 5 in the window labeled 'map' where the data from the time chart below is the same data collected from the time track in the window labeled 'map' and in figure I where there is a chart located on the far corner of the space-time cube.

As per claim 17, Kraak teaches the claimed "maintaining an orientation of the time chart with respect to the reference surface such that changes in the attitude of the reference surface in response to the user events does not result in a corresponding change in the orientation of the time chart" by teaching of "Figure 5 shows some of the views that could be added" (4th paragraph under section 5) where if time chart of figure 5 was overlapping a time track and if the reference plane of figure I moved vertically up or down then the time chart's orientation would be maintained.

As per claim 18, Kraak teaches the claimed "wherein the time chart is represented as a rectangular region" by teaching of a time chart in figure 5, labeled 'map & time line' where the time chart has a rectangular like shape.

As per claim 19, Kraak teaches the claimed "configuring the time chart for providing an instant of focus in the temporal reference frame for at least some of the temporal and spatial properties of the group of data elements, the instant of focus coupled to the locations of interest of the reference surface, the instant of focus selected by the user events" by teaching of "These views help with orientation and navigation in the cube, as well as with the selection of the data displayed" (2nd paragraph under section 4) and by teaching of "Figure 5 shows some of the views that could be added" (4th paragraph under section 5) where the time chart of figure 5 would be capable of the claimed limitation.

As per claim 20, Kraak teaches the claimed "configuring the time chart for providing a time range selected from the group comprising; a past range of the temporal sequence preceeding the instant of focus, and a future range of the temporal sequence after the instant of focus" by teaching of "the time axis is manipulated by for instance changing world time for event time (time cartograms)" (abstract) where the time axis could be manipulated to change the instant of focus to better reflect the amount of time (range) that has pasted or the amount of time (range) in the future of the sequence.

As per claim 21, Kraak teaches the claimed "wherein the time chart has a superimposed grid for representing the time axis and the spatial axis" by teaching of the claimed axes and markings (grid) in figure 5, in the window labeled 'map & time line'.

As per claim 32, Kraak does not explicitly teach the claimed "wherein the solid line has a pointer for indicating a vector property of the visual connection element". However, it would have been obvious to one of ordinary skill in the art to add a pointer to the solid lines (space-time paths) of figure I in order to better indicate direction in paths with circles.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: please see form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel F. Hajnik whose telephone number is (571) 272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka J. Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Hajnik 1/20/06

DFH

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER